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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/803,212

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Kenneth C. Shuey

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05/25/2006

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EXAMINER

PATEL, PARESH H

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/803,212

Applicant(s)

SHUEY, KENNETH C.

Examiner

Paresh Patel

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 21-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the electric components of claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: 1) between optical diode and the electronic components, and 2) between metering circuit and the electronic components.

Dependent claims are also rejected, since they depend from rejected claim.

Claim Objections

4. Claim 1 is objected to because of the following informalities: it is not clear how an optical diode is in series with the power supply where a metering circuit (that is in series with the optical diode) is parallel with the power supply. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-10, 13, 14, 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hauptmann (US 4437059).

Regarding claim 1, Hauptmann in fig. 2 discloses an electrical power meter having electronic components, comprising:

a power supply [39] for converting alternating current (AC) voltage to a direct current (DC) voltage for powering the electronic components [components of 27, 31 or 64];

an optical diode [33] in series with the power supply; and

a metering circuit [27 and 31] in series with the optical diode and in parallel with the power supply.

Regarding claim 2, Hauptmann discloses the meter of claim 1, wherein the optical diode converts an electrical signal to an optical signal [at 37, see 33 and 35].

Regarding claim 3, APP discloses the meter of claim 1, wherein the electronic components include at least one of the following: a microprocessor [16], an analog-to-digital converter, a digital signal processor, and a resistive divider circuit.

Regarding claim 4, Hauptmann discloses the meter of claim 1, wherein the optical diode is a light emitting diode [LED 33].

Regarding claim 5, Hauptmann discloses the meter of claim 1, wherein the AC voltage is provided by an electric power line [P1 and P2].

Regarding claim 6, Hauptmann discloses the meter of claim 1, further comprising an optical communications port [64] in communication with the optical diode.

Regarding claim 7, Hauptmann discloses the meter of claim 1, wherein the optical communications port provides data relating to the operation of the meter [using 65].

Regarding claim 8, Hauptmann discloses the meter of claim 1, wherein the power supply is capable [V1 and +V of 39] of providing power sufficient to operate the optical diode and the electronic components.

Regarding claim 9, Hauptmann discloses the meter of claim 1, further comprising a switch [65] in communication with the optical diode.

Regarding claim 10, Hauptmann discloses the meter of claim 9, wherein the switch comprises a transistor [65].

Regarding claim 13, Hauptmann discloses the meter of claim 9, wherein the switch provides DC current [pulses] to the optical diode when a request for communication is received.

Regarding claim 14, Hauptmann discloses the meter of claim 13, wherein the DC current provided to the optical diode represents communication of data [pulses] with an optical communications port [64].

Regarding claim 18, Hauptmann discloses the meter of claim 8, further comprising a first resistor [R16] in series connection with the switch.

Regarding claim 20, Hauptmann discloses the meter of claim 1, wherein the optical diode causes a voltage drop [drop across 33] of the DC power provided by the power supply.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 11-12 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Hauptmann as applied to claims 9 and 1 above, and further in view of Litz et al. (US 5274082).

Regarding claim 11, APA and Hemminger et al. discloses all the elements except for the meter of claim 9, wherein the switch is in parallel with the optical diode. Litz et al. (hereafter Litz) in fig. 6 discloses the switch [36] is in parallel with the optical diode [30] to control the voltage at line 1 using microprocessor 13. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to add the switch in parallel with the optical diode of Hauptmann to control optical diode, which further control external line [see lines 25-50 of column 5].

Regarding claim 12. Litz discloses the meter of claim 9, wherein the switch allows DC current to bypass the optical diode.

Regarding claim 15, Hauptmann discloses all the elements of the meter of claim 9, except for the switch is controlled by a **microprocessor device**. Rather, Hauptmann discloses **an integrator 31** to control the switch. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use microprocessor, since it has been held that making an old device portable or movable without producing any new and unexpected result involves only routine skill in the art. *In re Lindberg*, 194F.2d 732, 93 USPQ 23 (CCPA 1952).

9. Claims 16-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hauptmann as applied to claims 8, 9 and 1 above, and further in view of Hemminger et al. (US 6504357) or Hemminger et al. (US 5555508).

Regarding claim 16, Hauptmann discloses all the elements except for a buffer transistor in series connection with the switch. Hemminger in fig. 5 discloses, the meter of claim 9, further comprising a buffer transistor [grounded transistor] in series connection with the switch. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to add a buffer transistor as taught by Hemminger with transistor 65 of Hauptmann, in order to obtain control during measuring the parameters as further defined by Hemminger.

Regarding claim 17, Hemminger in fig. 5 discloses, the meter of claim 16, further comprising a microprocessor for controlling operation of the buffer transistor [see arrow for 16].

Regarding claim 19, Hauptmann discloses all the elements except for a second resistor as claimed here. Hemminger in fig. 5 discloses the meter of claim 8, further comprising a second resistor [resistor between +5V and 110] in parallel connection with the switch. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to add a second resistor as taught by Hemminger to Hauptmann's meter, for all the advantages that Hemminger has to offer for modified meter of Hauptmann.

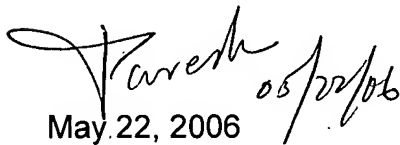
Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 571-272-1968. The examiner can normally be reached on 8:00 to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2829

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


May 22, 2006

Paresh Patel
Primary Examiner
Art Unit 2829